



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,352	01/24/2002	Gregory Mathus	5043CON	8045
7590 06/25/2004				
Samuels, Gauthier & Stevens, LLP 225 Franklin Street, Suite 3300 Boston, MA 02110		EXAMINER KOYAMA, KUMIKO C		
		ART UNIT PAPER NUMBER		
		2876		

DATE MAILED: 06/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
P.O. Box 1450  
ALEXANDRIA, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/056,352  
Filing Date: January 24, 2002  
Appellant(s): MATHUS ET AL.

Mr. Maurice E. Gauthier  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**

**JUN 25 2004**

**GROUP 2800**

This is in response to the appeal brief filed April 14, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is incorrect (Appellant did not state that claims 1-21 have been canceled). A correct statement of the status of the claims is as follows:

This appeal involves claims 22-36.

Claims 1-21 have been canceled.

**(4) *Status of Amendments After Final***

No amendment after final has been filed.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 22-36 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

6,270,728	Wijnschenk et al	08-2001
6,165,594	Moh et al	12-2000
6,133,342	Mizobuchi et al	10-2000

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 22-32 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Wijnschenk et al (US 6,270,728) in view of Moh et al (US 6,165,594). This rejection is set forth in a prior Office Action, mailed on December 30, 2003 and duplicated as below.

Claims 22-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wijnschenk et al (US 6,270,728) in view of Moh et al (US 6,165,594).

Wijnschenk shows a test tube (FIG 1) comprising an enclosed sidewall 2 and an integral bottom surface 6 that together define a tubular container 1 having an open top 20, wherein the bottom surface has a concave interior surface 3 and a planar exterior surface 7 upon which machine readable coding 9 is encoded on a label, having a light-coloured background on which a contrasting pattern of dots (col 1 lines 59-65) is printed, deposited onto the planar exterior surface 7 to uniquely identify the test tube (col 1 lines 20-22). Wijnschenk also teaches that the machine readable coding is applied to an optically opaque background to ensure the machine readable coding is readable at all times with an optical reading mechanism (col 1 lines 66+).

Art Unit: 2876

Re claims 22, and 29: Wijnschenk fails to teach that the machine readable coding is encoded within a multi-layered opaque coatings of contrasting colors.

Moh teaches a machine readable label (col 1 lines 19-23) having a multilayered construction (col 3 lines 16-17), where a top layer of one color overlies a layer of a contrasting color (col 2 lines 58-59). Moh discloses that the label is attached to identify and track a product (col 2 lines 67+) made out of a substrate 12, which includes glass (col 5 lines 43-44).

Re claims 23, 25, 27 and 30: Moh shows a label 10, which includes base layer 14 and top layer 16, attached to a substrate 12 (FIG 1, col 5 lines 32-33). Moh teaches a formation of a code pattern by removing portions of the top layer 16 to expose the underlying base layer 14, so that the code is optically discernible (col 7 lines 12-20). Moh also teaches that layer 14 and layer 16 are contrasting colors (col 7 lines 13-15), and that layer 14 is white and layer 16 is black (col 7 lines 26-27).

Re claim 24, 26 and 32: Moh teaches that selected portions of the second layer are removed by exposure to laser ablating techniques (col 8 lines 9-15).

Re claim 28: Moh teaches that the label may comprise metal (col 2 lines 4-12).

Re claim 31: Moh teaches that the label may comprise metal (col 2 lines 4-12). Although Moh does not disclose the exact word "hot stamping," he discloses that for forming a multilayer label, layers may be stacked and laminated together using appropriate pressure and temperature (col 16 lines 1-2).

In view of Moh's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate Moh's label to the teachings of Wijnschenk and create a multilayered opaque coatings of contrasting colors because it would have resulted in

Art Unit: 2876

more distinct color contrast of the coding and distinctive opaqueness of the background, therefore resulting in reducing the error rate in reading the code.

Claims 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wijnschenk as modified by Moh as applied to claim 24 and 32 above, and further in view of Mizobuchi et al (US 6,133,342). Wijnschenk as modified by Moh have been discussed above.

Wijnschenk as modified by Moh fail to teach that the opaque coating undergoes a change in color when exposed to the coherent light source, includes a light sensitive pigment that undergoes the change in color, and the change in color is effected by altering the color of the light sensitive pigment included in the opaque coating.

Mizobuchi discloses an opaque coating composition comprising a colorant (col 2 lines 57-60) and a substrate is coated with the composition (col 2 lines 45-46). Mizobuchi further discloses that upon irradiating the substrate with a laser beam according to the predetermined marking pattern, the polymeric material becomes translucent or transparent, and as a result, the colorant is made visible. The visible mark is created on the substrate (col 2 lines 47-53). The colorant comprises a pigment and may be in different colors, such as blue, red, or yellow (col 10 lines 1-2 and 44-45, col 12 line 9).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Mizobuchi to the teachings of Wijnschenk as modified by Moh because the modification provides the code marking with more variety of colors, which is easily visible and recognizable by human eye. Such modification also helps

place the test tube in a correct category or location by using the color differences in order to prevent the test tube from getting lost within a lab.

**(11) *Response to Argument***

The examiner respectfully disagrees with Appellant's comments and arguments as stated in the Appeal Brief, for the following reasons:

In response to Appellant's arguments regarding "neither Wijnschenk et al or Moh et al, either when viewed singly or in combination, disclose or suggest the unitary test tube concept claimed in the claim 22" (Appeal Brief, page 3, lines 6-7), the examiner respectfully disagrees. The examiner also respectfully disagrees with the Appellant in regards to the comment "the Examiner's position is that the carrier part 6 is a "coating" that is deposited onto the bottom surface of the tubular container 2" on page 3, third paragraph of the Appeal Brief. The Appellant has been provided with the examiner's interpretation and explanation of the claims, particularly to claim 22, as set forth in the Final Office Action mailed on December 30, 2003. However, the examiner has not submitted any comment or interpretation relating to the carrier part 6 being a "coating" in any of the office actions, and such misunderstanding will become apparent as the examiner provides additional explanation regarding to the interpretation and the correlation between the instant claimed invention and the prior art references in more detail.

The Appellant submits that neither Wijnschenk et al (herein after Wijnschenk) or Moh et al (hereinafter Moh) disclose or suggest the unitary test tube concept claimed in claim 22, where the machine readable data is encoded within an opaque coating on the exterior bottom surface of

Art Unit: 2876

the test tube. However, the examiner respectfully disagrees and believes that Wijnschenk in view of Moh teach the invention claimed in claim 22. Claim 22 recites the following:

“A test tube, comprising:

a tube body of unitary construction comprising an enclosed sidewall and an integral bottom that together define a tubular container having an open top, wherein said bottom has an exterior surface upon which machine readable data is encoded within an opaque coating deposited onto said exterior surface to uniquely identify said test tube.”

Fig. 1 of Wijnschenk shows a test tube of unitary construction as indicated by reference number 1 in the figure. The test tube is considered as a unitary construction because the carrier part 6 is united with the tubular body 2 and as a whole, provides a singular composition as shown in Fig. 1. Wijnschenk also shows that the test tube has an enclosed sidewall 2, which is shown in both Fig. 1 and Fig. 2a, and an integral bottom 6, also shown in Fig. 1 and Fig. 2a. Wijnschenk's test tube also has an opening 20 at the top. The carrier part 6, or in other words integral bottom, has a surface facing outside of the test tube, which is shown in Fig. 1. And such exterior surface includes a code 9, which is considered as a machine readable data. For support, Wijnschenk references specifically disclose that “at its bottom end, the test tube is further provided with an optically readable coding 9” (col 6, lines 9-11). The codes are used for keeping a record of the contents of each test tube, which indicates that the code identifies the test tube (col 1, lines 20-23). Wijnschenk also teaches that the machine readable coding is applied to an optically opaque background (col 1, lines 66+). As a reason for including such opaque background, Wijnschenk discloses “said optically readable coding is applied to an optically substantially opaque surface, i.e. a surface or background which is to the optical reading mechanism to be used, so that the reading with the optical reading mechanism cannot be interfered with as a result of substances, powders, liquids or solid particles present in the test tube” (col 6, lines 11-17) and “if the surface



Art Unit: 2876

or the background is not or is insufficiently optically opaque, errors could occur during reading of the code, as a result of reflections coming from the substance present in the test tube” (col 2, lines 3-7).

Although a machine readable code is provided on the bottom surface of the test tube, Wifnschenk does not specifically use the term “coating” in its disclosure for the opaque surface on which the machine readable code is provided on. The examiner recognizes the lack of such term and lack of a clear teaching of “coating.” However, the examiner introduced Moh and rejected claim 22 as being unpatentable over Wijnschenk in view of Moh (Final Office Action mailed December 30, 2003). The rejection was based on a combination of Wijnschenk and Moh, and not based on a single reference.

Moh teaches a label for labeling a substrate. The label includes a code pattern, such as a machine readable code and bar code patterns (col 3, lines 8-14). The substrate includes flat glass, curved glass, ceramic whiteware, wine bottles, nuclear waste tanks, glass surfaces of cathode ray tube components, etc (col 5, lines 43-57). In other words, the substrate is made out of material that are use for conventional test tubes, such as curved class. The multiple layers, which construct a label, includes a top layer of one color overlaying a layer of a contrasting color (col 2, lines 58-59). Moh further teaches that the color contrast between layers allows the resultant pattern formed from the top layer to be optically discernible. This allows information to be incorporated into the label by selectively patterning or removing the top layer to form one of more symbols of a code pattern either as a negative or a positive image, as desired. Such a code pattern, in turn, allows a labeled substrate to be easily identified and tracked during production (col 2, lines 62+).

As indicated above, both Wijnschenk and Moh are concerned with differentiating the pattern of the code and the background surface or color. Both references teach that it is important to provide a distinctively recognizable contrast in order to achieve a clear unmistakable reading of the pattern, when the pattern, such as a bar code, is read by a bar code reader. In addition to both references having same objective for its invention, Moh also teaches a label, which can be easily attached to a substance that is made out of glass material. As a result, when the teachings of Moh is incorporated into the teachings of Wijnschenk, a test tube manufactured without the opaque surface can be easily transformed into a test tube having an opaque surface by simply applying layers of opaque and contrasting layers such that a reader, such as a bar code scanner, can quickly identify the bars and spaces of the barcode to achieve an identification information. Consequently, it would have been obvious to one in ordinary skill in the art to combine the teachings of Moh to the teachings of Wijnschenk for faster and accurate reading of the code pattern. And therefore, all the claimed limitation has been meet.

With respect to Appellant's comments regarding "the Examiner's position is that the carrier part 6 is a "coating" that is deposited onto the bottom surface of the tubular container 2," the examiner provides explanations as below.

In the present Appeal Brief as well as throughout the prosecution of the instant application, the Appellant submitted the following:

"Claim 22 claims a test tube having a unitary construction, with machine readable data encoded within an opaque coating deposited onto the exterior surface of the tube bottom.

Claim 22 stands finally rejected as being obvious over Wijnschenk et al. in view of Moh et al. Wijnschenk et al. Teaches machine readable data encoded into the surface of a separate carrier part 6 attached to a test tube bottom. Moh et al. Teaches a temperature resistant label that is attachable to a substrate. Neither Wijnschenk et al. or Moh et al., either when viewed singly, or in combination, disclose or suggest the unitary test tube concept claimed in claim 22, where the

Art Unit: 2876

machine readable data is encoded within an opaque coating on the exterior bottom surface of the test tube.” (The emphasis was added by the Appellant)

Since the emphasis were added to the “attached” and “attachable,” and no particular explanation was provided by the Appellant regarding why the emphasis was added or why the Appellant disagrees with such terms, the examiner believed that the Appellant was indicating that the examiner’s provided references that did not teach the claimed limitations. Consequently, the examiner submitted that claim 22 recites, “... machine readable data is encoded within an opaque coating deposited onto said exterior surface to uniquely identify said test tube” (emphasis added by the examiner). The labels attached to the substrate in Moh’s teachings and the carrier part 6 attached to the test tube in Wijnschenk’s teaching are all teachings of placing a machine readable data on to some substrate, and therefore, such teachings reads on the limitation “... machine readable data... deposited onto an exterior surface.” The Appellant does not argue anything about the opaque coating, and therefore, the examiner was under the assumption that the Appellant understood the examiner’s position regarding the provided rejection and did provide any explanation regarding the interpretations of the opaque coating. The examiner did not take the position that the carrier part 6 is a “coating” as the Appellant concludes in the instant Appeal Brief.

In response to Appellant’s arguments regarding the limitation of “unitary construction” and the allowance of the U.S. Patent Application No. 09/399,404 (hereinafter “the ‘404 application”), now known as U.S. Patent No. 6,372,293 (hereinafter ‘293 patent), the examiner submitted that the claims of ‘293 patent define the test tube in further detail using more limitations and that such limitations were considered as part of the “unitary construction” of the

Art Unit: 2876

test tube. For example, claim 21 of the '293 patent, which the examiner believes is the broadest claim in the patent, recites the following:

“A test tube, comprising:  
a tube body of unitary construction comprising an enclosed sidewall and an integral bottom that together define a tubular container having an open top, wherein said bottom has a concave interior surface and a planar exterior surface upon which machine readable data is encoded within an opaque coatings of contrasting colors deposited onto said planar exterior surface to uniquely identify said test tube.”

Compared with the instant application, the claim of '293 patent includes additional features/limitations to define the “unitary construction.” The additional features/limitations includes “concave interior surface,” “planar exterior surface” (instead of just “exterior surface”) and “contrasting colors.” Such limitations are believed to be taking part of the claim to define the “unitary construction” of the test tube and were considered during prosecution of the application, especially during consideration for allowance. Although the same language “unitary construction” is used, the definition of “unitary construction” in claim 22 of the instant claimed invention differs from that of '293 patent due to the fact that these limitations were not included. Without such limitations, Wijnschenk in view of Moh still read on the instant claimed invention.

The above comments and arguments are also directed towards claim 29 as well.

For the above reasons, it is believed that the rejections should be sustained.

Application/Control Number: 10/056,352

Page 12

Art Unit: 2876

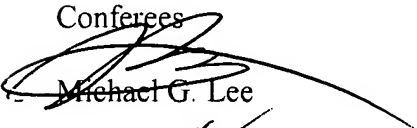
Respectfully submitted,


*Kumiko C. Koyama*

KCK

June 22, 2004

Conferees

  
Michael G. Lee

  
Olik Chaudhuri

Samuels, Gauthier & Stevens, LLP  
225 Franklin Street, Suite 3300  
Boston, MA 02110